

I Claim:

- 1           1. A pipe fitting comprising:  
2           a run tube including a cylindrical wall defining a first end opening, a second end  
3           opening, and an elongated throat opening;  
4           a branch tube fitting defining a fluid passage; and  
5           a tapered throat section coupled between said elongated throat opening and said branch  
6           tube fitting.
- 1           2. A pipe fitting according to Claim 1, wherein said first end opening is parallel to said  
2           second end opening.
- 1           3. A pipe fitting according to Claim 1, wherein said throat opening extends a majority of  
2           the length of said run tube.
- 1           4. A pipe fitting according to Claim 1, wherein at least one of said first end opening and  
2           said second end opening include a fitting for coupling said at least one of said first end opening  
3           and said second end opening to a piping system.
- 1           5. A pipe fitting according to Claim 4, wherein said fitting of said at least one of said first  
2           end opening and said second opening comprises a flange.
- 1           6. A pipe fitting according to Claim 5, wherein said at least one of said first end opening  
2           and said second end opening defines a collar, said collar adapted to retain said flange about said  
3           at least one of said first end opening and said second end opening.
- 1           7. A pipe fitting according to Claim 1, wherein a branch tube is interposed between said  
2           throat section and said branch tube fitting.

1           8. A pipe fitting according to Claim 7, further including a collar around said branch tube  
2 and adapted to couple said branch tube fitting to a piping system.

1           9. A pipe fitting according to Claim 1, wherein said branch tube fitting comprises a  
2 flange.

1           10. A pipe fitting according to Claim 1, wherein the cross sectional area of said  
2 elongated throat opening is at least 1.25 times greater than the cross sectional area of said fluid  
3 passage.

1           11. A pipe fitting according to Claim 1, wherein said pipe fitting is adapted for use in a  
2 winery piping system.

1           12. A pipe fitting according to Claim 11, wherein said pipe fitting is fabricated from  
2 stainless steel.

1           13. A pipe fitting according to Claim 1, wherein:  
2 said throat section includes a front wall and a back wall; and  
3 said front wall and said back wall are tangentially coupled to said run tube.

1           14. A pipe fitting according to Claim 13, wherein:  
2 a branch tube is interposed between said throat section and said branch tube fitting; and  
3 said front wall and said back wall are coupled to said branch tube.

1           15. A pipe fitting according to Claim 13, wherein said front wall and said back wall are  
2 flat.

1           16. A pipe fitting according to Claim 1, wherein said throat section includes a first side  
2 wall and a second side wall, said first side wall and said second side wall each defining a radius  
3 of curvature between said run tube and said branch tube fitting.

1 17. A pipe fitting according to Claim 16, wherein:

2 said fluid passage is generally circular; and

3 said radius of curvature is at least 1.5 times the diameter of at least one of said first end  
4 opening, said second end opening, and said fluid passage.

1 18. A pipe fitting comprising:

2 a body defining a generally triangular inner chamber; and

3 three connectors, each coupled to a respective corner of said triangular chamber for  
4 providing fluid communication with said chamber.

1 19. A pipe fitting according to Claim 18, wherein said body defines three fluid passages,

2 each of said fluid passages in fluid communication with a respective one of said connectors.

1 20. A pipe fitting according to Claim 19, wherein said body defines a radius of curvature

2 between two adjacent ones of said fluid passages.

1 21. A pipe fitting according to Claim 20, wherein:

2 each of said fluid passages is generally circular; and

3 said radius of curvature is greater than 1.5 times the diameter of a largest one of said fluid  
4 passages.

1 22. A pipe fitting according to Claim 20, wherein said radius of curvature is infinite.

1 23. A pipe fitting according to Claim 18, wherein a tube is interposed between at least

2 one of said connectors and an associated corner of said chamber.

1 24. A pipe fitting according to Claim 18, wherein each of said connectors comprises a

2 flange.

1           25. A pipe fitting according to Claim 24, wherein each of said flanges is retained by a  
2 collar coupled to said body.

1           26. A pipe fitting comprising:  
2           a tube having a cylindrical wall defining a first end opening, a second end opening, and  
3           a throat opening;  
4           a connector defining a fluid passage; and  
5           a throat section coupled between said throat opening and said connector; and  
6           wherein a cross-sectional area of said throat opening is at least 1.25 times greater than a  
7           cross-sectional area of said fluid passage.

1           27. A pipe fitting according to Claim 26, wherein said cross-sectional area of said throat  
2 opening is at least two times greater than said cross-sectional area of said fluid passage.

1           28. A pipe fitting according to Claim 26, wherein said cross-sectional area of said throat  
2 opening is at least three times greater than said cross-sectional area of said fluid passage.

1           29. A pipe fitting according to Claim 26, wherein said throat opening is elongated.

1           30. A pipe fitting according to Claim 26, wherein said throat section, in combination  
2 with a portion of said tube, forms a generally triangular inner chamber.

1           31. A pipe fitting according to Claim 26, wherein at least one of said first end opening  
2 and said second end opening include a connector for connecting said at least one of said first  
3 opening and said second opening to a piping system.